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Responsible Transport: A post-COVID agenda for transport policy and practice

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ABSTRACT

The unprecedented global shutdown that resulted from the COVID pandemic presents an opportunity to reconfigure future transport policy and practice for the benefit of the global environment and individual citizens alike. Before COVID, much of the emphasis in transport policy was on demand management, 'smart' technological interventions and sustainable mobility. The public health crisis has necessitated an urgent reconsideration of transport and its contribution to post-COVID economic recovery. In recognition of the importance of individual behaviour and collective responsibility in protecting both personal and public health during the crisis, this think piece proposes a new concept of *Responsible Transport* to help inform and shape transport policy and practice responses to COVID. The novelty of this proposal lies in the fact that it incorporates not only environmental considerations with respect to sustainability but also encompasses considerations of individual and community health and wellbeing. Moreover, it stresses the role of the individual as a responsible autonomous actor in delivering socially desired transport outcomes.

1. Introduction

The unprecedented shutdown in industrial activity and the associated reduction in transport emissions that resulted from the COVID-19 pandemic resulted in notable improvements in local air quality in towns and cities worldwide (Monks, 2020) and a glimpse, perhaps, of a greener future. National stay at home and lockdown restrictions, which were imposed in many countries worldwide to reduce transmission of the virus, have led to mass unemployment, an increase in home working for those still employed, and an unprecedented decline in road traffic, air travel, and public transport ridership. In Europe, passenger air traffic fell by as much as 90% (Eurocontrol, 2020) while the number of passengers using public transport declined by 80% in some cities as commuter demand evaporated and transport operators reduced their services (Bernhardt, 2020). In the UK, road traffic volumes fell by as much as 73% to levels not seen since the mid-1950s as private cars remained on driveways and people adhered to Government advice to remain indoors (Carrington, 2020).

Quieter roads, combined with official advice on taking limited daily outdoor exercise, encouraged more people to walk and cycle in their neighbourhoods (Edwards, 2020). As a consequence, many people remarked on the cleaner air, the reduction in road traffic and aircraft noise, and the stress-countering effects of slowing down and hearing nothing but birdsong and encountering more wildlife in formerly busy urban environments (see, for example, Keena, 2020). The sudden and dramatic shift to a slower, more localised and less-carbon intensive existence indicated at the scale and scope of the changes that could be sustained in a post-COVID world given sufficient public and political will.

Given the central role of transport interconnectivity and global hypermobility in disseminating the virus (see Musselwhite et al., 2020) and the significant impact on transport operators and practices that has occurred as a result of national lockdowns, there are real opportunities to develop a new future for transport in a post-COVID world. The purpose of this paper is to act as a think piece to stimulate further discussion and debate. To this end, the paper advances a new concept of *Responsible Transport* for a post-COVID world which recognises the important role of individual choice and actions in collectively delivering socially desired outcomes. The following section briefly reviews the impact the Coronavirus pandemic has had on different forms of transport and mobility and discusses the inadequacies of existing transport policy approaches to respond to the new challenges COVID has posed. A new concept of Responsible Transport is then proposed in an attempt to help address some of the issues that have been identified with existing approaches.

2. Transport and COVID-19

The outbreak of a novel human Coronavirus SARS-CoV-, which was first identified in Wuhan, China, in late 2019, has spread rapidly. The hypermobility and interconnectedness of 21st century transport networks, including high-speed and high-capacity rail and intercontinental air travel, provided rapid conduits for transmission. The virus's incubation period of

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2–10 days afforded ample opportunity for infected but asymptomatic travellers to export infection undetected across international borders and propagate transmission in receiving communities. By the end of May 2020, the virus (and the COVID-19 disease it causes) had spread to most countries on earth. By June 1st 2020, the WHO reported that over 6 million people had been infected worldwide and over 371,000 had died with COVID-19 (WHO, 2020).

As Governments around the world seek to address the unfolding international public health emergency and attendant economic consequences of shutting down large sections of society for months at a time to try and slow and restrict the virus's spread, discussions are being held about what the 'new normal' will look like and how, when, and under what conditions existing restrictions and social distancing measures could (or should) be relaxed. One of the key issues relates to transport and mobility in a post-COVID world. Although the temptation to rapidly resume 'business as (previously) normal' undoubtedly exists and is attractive for certain sections of society, others are suggesting that the crisis should act as a catalyst for creating a 'greener' post-COVID economy built on more environmentally sustainable business practices and more considered personal consumption choices that will simultaneously protect both the global environment and individual people living within it (Greenpeace, 2020; Vince, 2020).

The role of individual responsibility in achieving positive social and environmental outcomes in the face of global public health and climate crises is pertinent and one we wish to develop in this paper. The pandemic has served to highlight the role of individual, collective and political responsibility and actions. Although International agencies and national Governments have been central in formulating policy responses, it has been the result of collective action by individual citizens which has arguably been the most apparent and profound. Hundreds of millions of individuals, empowered (or in some cases legally compelled) with the knowledge and responsibility to protect not only their health but also the health of those around them (and therefore the capacity of national health services to deal with the pandemic), have responded by shielding and isolating themselves, often at great personal, social and financial cost, from the company of others. Throughout the COVID pandemic the onus has been placed on the individual to be responsible. Clear directives and communications to go home, stay at home, socially distance, wash your hands, only travel if absolutely necessary, avoid other people, use hand sanitizer, wear a face mask (and ideally gloves), work from home, don't visit friends and family, volunteer to help vulnerable others, be a good citizen, and do your civic duty have reinforced this message.

The collective impact of the individual behavioural changes these messages solicited has been sudden and dramatic. Almost immediately, people changed their daily routines and altered their household consumption patterns. Panic buying in supermarkets was quickly replaced with overwhelming (and, in many cases, unrealised) demand for online shopping and home grocery deliveries as consumers tried to avoid going outside (Hanbury, 2020). At the same time, unprecedented online orders for vegetable seeds and horticultural products indicated that increasing numbers of people were seeking to grow their own fruit and vegetables and tend their gardens to secure their future food supply and to productively fill their time (Ungoed-Thomas, 2020). Now, as individual countries look to relax restrictions on personal movement and progressively re-open shops and businesses, the role of individual transport options and travel choices have come to the forefront of debates about the future economy, the role of cities, and the future for 'smart' travel.

As Lyons (2020), however, has noted, existing terms such as 'smart' and 'intelligent' mobility, whether intentionally or not, have tended to elevate technological interventions and digital transport 'solutions' within policy arenas with the result that more mundane or simple actions can be downgraded or overlooked. This is an important point. Re-starting the global economy will inevitably require the increased mobility of people and the movement of goods. However, previous forms of long-distance hypermobility are evidently incompatible with the situation in June 2020 in which a readily-transmittable virus, with no available cure or vaccine, remains in circulation and which is disproportionately affecting vulnerable communities and particular ethnic groups. The disconnect between previous approaches to mobility and the need to transform current practices within the constraints of existing infrastructure and service provision and habituated individual travel behaviour is striking.

As a consequence, the public health messages that accompany the evolving policy environment can be complex and, in some cases, apparently contradictory. On 10th May 2020, for example, the UK Government announced that it was encouraging people to return to work where it was safe for them to do so but at, the same time, advised them to avoid using public transport wherever possible. Indeed, the UK Secretary of State for Transport encouraged people returning to work to travel by active means or private car in preference to public transport and recommended that "*If you can't walk or cycle but you do have access to a car, please use it rather than travelling by bus, train or tram*" (cited in McGrath, 2020). In response, internet searches for second-hand (used) cars for sale in the UK increased (Kirwan, 2020) and concern was expressed that more people would use private vehicles to travel to/from work, contradicting pre-COVID policy to encourage modal shift towards more sustainable active and public modes of transport.

The role of active travel gained newfound political and social prominence at the height of the crisis when walking and cycling (alone or with members of a single household) were promoted as a means of staying fit during the lockdown when all other options (including swimming pools, indoor gyms, leisure centres, and playgrounds) were closed. Active travel, which seeks to promote healthy journeys that demand some form of physical exertion on behalf of the individual (Sport England, 2019), potentially offer viable alternatives to the private car or public transport for short journeys as well as offering a welcome break from the confines of lockdown. With more time available, with less traffic on the roads, and under strict instructions to remain within their immediate area, people responded by walking and cycling in their neighbourhoods in increased numbers (see De Vos, 2020).

The potential for encouraging (and indeed sustaining) greater uptake of walking and cycling post-lockdown has been recognised by local and national politicians who have seen an opportunity to reconfigure the built environment of towns and cities, at relatively low cost, to facilitate safer and more connected journeys by foot and by bike. In towns and cities around the world, 'pop-up' bike lanes, shared spaces, and pedestrianised streets have been rapidly created to accommodate greater numbers of cyclists and pedestrians (Taylor, 2020). Greenpeace, in their '*Manifesto for a Green Recovery*' post-COVID called on politicians and policymakers to 'Fundamentally redesign urban transport to prioritise walking and cycling, improving public health and delivering clean air' (Greenpeace, 2020, unpaginated). However, active travel is only an option for those who are able to self mobilise and (in the case of cycling) those who are able and can purchase, maintain and securely store a bicycle. Moreover, even when dedicated bike lanes, workplace showers and storage areas are provided, cycling is not accessible to all and inclement weather and cultural and social barriers continue to limit the number of women and ethnic minority cyclists (see Corcoran et al., 2014; Goodman and Aldred, 2018; Prati, 2018).

For those who are unable or unwilling to walk or cycle and for those without access to a private car, public transport may be the only option. However, a survey in May 2020 by the UK independent transport group Transport Focus revealed that 4 in every 10 people surveyed said they will not use public transport again until they feel it is safe to do so and only 18% of respondents stated that they would be happy to resume using public transport when Government restrictions are lifted (Transport Focus, 2020). In an effort to reassure passengers of the safety of their operation, public transport operators and vehicle manufacturers are reconfiguring the internal layout of seats and circulation spaces on buses and trains, and installing contactless door sensors, hand sanitizer dispensers and clear screens between seats to provide a physical barrier to airborne aerosols (see Paton, 2020). Although such interventions provide a visible manifestation of a response to a manifest public health threat, their efficacy and levels of public acceptance are unknown.

Air passenger transport, meanwhile, as the quintessential mode of rapid long-distance international mobility, was not only implicated in accelerating the global transmission of the virus but has also been significantly impacted by the travel restrictions and unprecedented reduction (as much as 99% in some markets) in passenger demand that resulted from it. Around the world airports have closed, many airlines have suspended flight operations, over two-thirds of the world's passenger aircraft fleet have been placed into temporary storage, and tens of thousands of staff have been furloughed, placed on unpaid leave, or made redundant (Eurocontrol, 2020). At the time of writing it is impossible to estimate if (or when) passenger air demand will return to pre-pandemic levels. The International Civil Aviation Organization anticipates global passenger numbers could be 80% lower in 2020 than they were in 2019 (ICAO, 2020) and some airlines are indicating they do not expect passenger demand to return to 2019 levels until 2022 or 2023 at the earliest (see Jolly, 2020).

In response to requests from the aviation industry for taxpayer-funded loans and financial support, environmentalists have been pressuring Governments to only grant such requests on the condition that the industry 'cleans up its act' with respect to greenhouse gas emissions and promotes a more responsible attitude towards its staff. This consumer-based environmental pressure, exemplified perhaps by the eco-anxiety of the flight shaming movement which seeks to reduce passenger demand for air travel (on which see Mkono, 2020 and Flaherty and Holmes, 2020), has already had an impact. State aid granted to Air France by the French Government in Spring 2020, for example, was conditional on the carrier cutting domestic flights by 40% by 2021 (Eurocontrol, 2020). In the UK, 26 civil society groups wrote to the UK Chancellor at the height of the pandemic to argue that any financial support given to the UK aviation industry must be accompanied by strict environmental conditions, including a new fiscal regime and a proposed frequent flier levy (Harvey, 2020).

The significant and destabilising impact the pandemic is having (and will continue to have) on the global economy and all forms of transport and mobility provides a unique opportunity to reconfigure post-COVID transport policy and practice. Prior to the pandemic, much of the emphasis was on 'top-down' Transport Demand Management, Smart Mobility, Intelligent Transport and Mobility Management approaches to transport policy. All sought to mitigate (as far as possible given budgetary constraints and political considerations) the negative externality effects of transport noise, emissions, congestion and accidents using a range of policy instruments, technological interventions, active travel initiatives and pricing mechanisms to modify individual and corporate travel behaviour and make it more environmentally sustainable. However, in the face of the growing climate emergency and current global public health crisis, these approaches alone will be inadequate in a post-COVID world.

3. Towards Responsible Transport post-COVID

In recognition of the limitations of existing transport policy that attempts to reconcile the apparent contradiction between economic growth on the one hand and environmental safeguarding and protection on the other through top-down interventions, we would like to propose a new concept of *Responsible Transport* in which individual citizens are aware of the effects their mobility and travel behaviour have on themselves, other people (fellow users and third parties) and the local (and global) environment, and act accordingly. Internet searches (conducted in English using a major global search engine) for the term reveal that while it has been used once in a commercial setting (VIIA, 2020) and once on an environmental activist website it has yet to gain any traction in academic or policy arenas. Interestingly, a discussion concerning 'irresponsible travel' behaviours in the context of international tourist practices and travel medicine did not extend to everyday transport use (see Lim and Flaherty, 2018).

Given the global pandemic, integrating personal, social and commercial objectives with an individual responsibility for environmental protection and personal safeguarding is an innovative and challenging proposition and one which is more encompassing than existing terms surrounding 'environmentally responsible transport' or 'carbon responsible transport'. Indeed, there is an opportunity post-COVID to expand and transform global transport policies and planning (as opposed to merely transport operations) using the concept of Responsible Transport which grows out of the lessons learned from individual self-isolation and taking responsibility for personal and others' health and wellbeing. As such:

> *Responsible Transport delivers safe, secure and equitable mobility that embeds social, economic and environmental wellbeing at the heart of post-COVID transport policy, planning and operations and enables individuals to make considered transport choices.*

Clearly any transition towards *Responsible Transport* will occur in a rapidly changing policy and service environment. In addition to consumer safety, public health and social equity considerations, new technological and service innovations will impact upon the choices individuals can make. The advent of Uber, EVs, electric bikes and e-scooters (and potential for urban air mobility drones) are just some examples of what will increasingly provide the context in which Responsible Transport will develop.

For the individual, Responsible Transport choices will be shaped in large part by the provision of suitable modes but, assuming these are in place, will involve:

- Deciding whether you really need to travel for a work-related activity or whether the meeting/conversation/event could be held via video call or other digital means;
- Whether physical travel is necessary, considering all the possible modes of transport, selecting the one which has the lowest environmental and social impact. Of course, Responsible Transport is only possible in this regard if the individual has a choice be that to use the car or not, whether they indeed have access to a car, whether or not they are able to cycle to work, given distance and health conditions or the choice as to whether to take a flight or the train, if that is an option;
- Considering the impact your travel choices have on others and the local environment (in terms of noise, congestion, safety), and indeed yourself in terms of health and well-being;
- Voluntarily offsetting flight emissions using an accredited scheme and empowering oneself to assess the environmental credentials of different airlines and purchasing accordingly (such as selecting those operating a more modern fleet with higher load factors);
- Appreciating that many of the items ordered online and perishable foodstuffs purchased out of season are likely to be imported by air;
- Considering the impact your mobility will have on the receiving communities/countries you intend to visit and be cognisant of and considerate towards local cultural and religious practices;
- Petitioning employers to incentivise and support more sustainable travel options and reduce the need for commuting through flexible homeworking and the provision of suitable IT infrastructure.
- Individuals, as far as possible given asymmetric information, having responsibility for risk assessing their own journeys and acting accordingly.

Shaw and Docherty (2014) suggest that in 'venerating' the private car global transport policy has reduced individual choice by failing to support the provision of quality public and active transport alternatives. The COVID-19 pandemic provides an opportunity to reconfigure the status quo. However, as long as social distancing measures remain in place, attempts to promote public transport, even in locations where Governments are supportive of its use, are likely to be problematic. As such, responsible individual behaviour with respect to the safe use of public transport is required. In this regard the development of real-time mobile phone apps which alert potential public transport passengers to overcrowding and suggest alternative routes could be valuable. Similarly, a focus on active travel via Government emergency funding for reconfiguring road space and bringing forward trials for e scooters and their safe use can only serve to encourage Responsible Transport, helping people arrive at a responsible choice as they weigh up how, or indeed whether, to make a journey.

Responsible Transport differs from conventional pre-COVID approaches in that it requires an element of individual responsibility which, in turn, creates collective action and demand to drive further improvements in responsible transport policy and provision. Bottom up pressure from the public (i.e. taking greater responsibility for your actions) can encourage international agencies and national Governments to create the political, financial and physical infrastructure that is required to transform mobility habits and decarbonise transport. This approach, as the financial support package granted to Air France has shown, can quickly yield tangible results. Taking personal and collective responsibility for ones actions affords individual travellers greater choice in how they move and so they find that their options are no longer constrained by a lack of choice or reliance on polluting and socially exclusionary/inequitable transport modes.

This approach, brought about in no small part as a result of the COVID pandemic, puts new emphasis on the role of individual action in achieving desired social outcomes as it concerns the choices people make which, in turn, impact on levels of congestion, air pollution and accidents. Empowering individuals to take responsibility for their actions for the good of themselves and the communities in which they reside has been shown to be effective in the context of the COVID pandemic when millions of people around the world have isolated and shielded themselves and their families from others, often at considerable personal cost, to slow the rate of transmission. This approach, does not, of course, absolve international agencies, national and local Government and corporations from their responsibilities to safeguard the environment, protect workers, ensure safety and uphold consumer rights. What it does do is recognise the potential to empower individuals to effect positive change.

Adopting such an approach and applying it to the domain of transport policy will be challenging. It will require different ways of thinking and working, both collectively and individually, as the concept cross-cuts traditional institutional and commercial boundaries and requires a nuanced consideration of people, place and policy. In horticulture, the phrase 'right plant, right place' is often used as a short-hand to remind gardeners of the need to match particular growing conditions, soil, aspect and climate, to the plants that are best suited to them. Extending this analogy to transport, we need to work towards the 'right policy, right place' and recognise that there is no one size fits all solution and that transport policy must be reflective of, and responsive to, the particular time and mobility needs of the people and places it must serve. One potential way to enact this change is to begin at a local level by incorporating elements of Responsible Transport in local transport plans and then in national government strategy documents. In time, this approach could be expanded to international policy making. The latter will, of course, require a high level of cooperation and coordination to achieve but the potential benefits to global society are considerable.

4. Conclusion

The unfolding climate emergency and COVID-19 pandemic have collectively served to highlight the interconnectedness and interdependencies of everyday life and the inherent challenges of political trust, transparency and (in)action. It has also served to highlight the responsibility that people have taken for their own (and others') health and welfare, self-isolating for many weeks at a time and enduring considerable disruption to normal routines of everyday life. This indicates the potential for embracing the power of the individual as a responsible decision maker for the common good in the post-COVID world. Returning to 'business as usual' is neither appropriate nor, at the present time, even possible and the pandemic could be the catalyst for change. While it would be conjecture to introduce a quantifiable measure of 'success' for Responsible Transport, such as a certain reduction in carbon emissions or a significant improvement in air quality, it is clear is that COVID-19, as devastating as it is, provides a once-in-a-life-time opportunity to take stock, reconsider and ultimately change transport policy and practice. Developing an agenda for Responsible Transport could be one small contribution that enables society to do just that and we hope this think piece will act as a stimulus for further discussion and debate.

CRediT authorship contribution statement

Lucy Budd: Writing - original draft, Conceptualization, Writing - review & editing. **Stephen Ison:** Writing - original draft, Conceptualization, Writing - review & editing.

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